8.1.4.d *Nobel Research Park (X 7)*

Site Description and Existing Conditions

Nobel Research Park (X 7) is located north of Nobel Drive and west of I-805 in the University Community Planning Area. The 3.29-acre vernal pool preserve was conserved via conservation easement as mitigation for the Nobel Research Park project (LDR 99-8034). This area is on the site of the IDEC Nobel Research Center and is outside the MHPA; it is zoned for scientific research and industrial parks. Adjacent land uses include transportation, multi-family residential and research parks.

Twenty-eight vernal pools (395 m^2 [4251.744 ft^2]) were mapped in 2003. The vernal pools are natural in origin and are underlain by Redding gravelly loam. Upland vegetation is characterized by disturbed coastal sage scrub and non-native grasslands, and *B. sandiegonensis* recorded in 2003.

This site appears to be relatively undisturbed, although there is evidence of historic off-road vehicle use. An itinerant encampment within the preserve was reported in 2006.

Threats

Development

These vernal pools were conserved via conservation easement as mitigation for the Nobel Research Park project (LDR 99-8034).

Invasive Species

Non-native species, particularly grasses, are present and may impact the basins.

Edge Effects

Nobel Research Park is located adjacent to roadways and other developed areas and is likely to be impacted by trash and non-native species. The site is not completely isolated, however, because the Nobel Drive site is located approximately 215 meters away.

Trespass

Fencing was installed at the edges of the preserve as part of the mitigation requirements. However, a large itinerant camp was reported in 2006.

Fire and Fire Suppression

Due to fencing and artificial slopes, it is unlikely that impacts would occur due to fire suppression activities. There is a low potential for wildland fire at Nobel Research Park due to the developed nature of the adjacent lands.

Required Management Activities

The site was conserved (via conservation easement) and fenced as conditions of project approval for the Nobel Research Park project (LDR 99-8034).

Management Recommendations

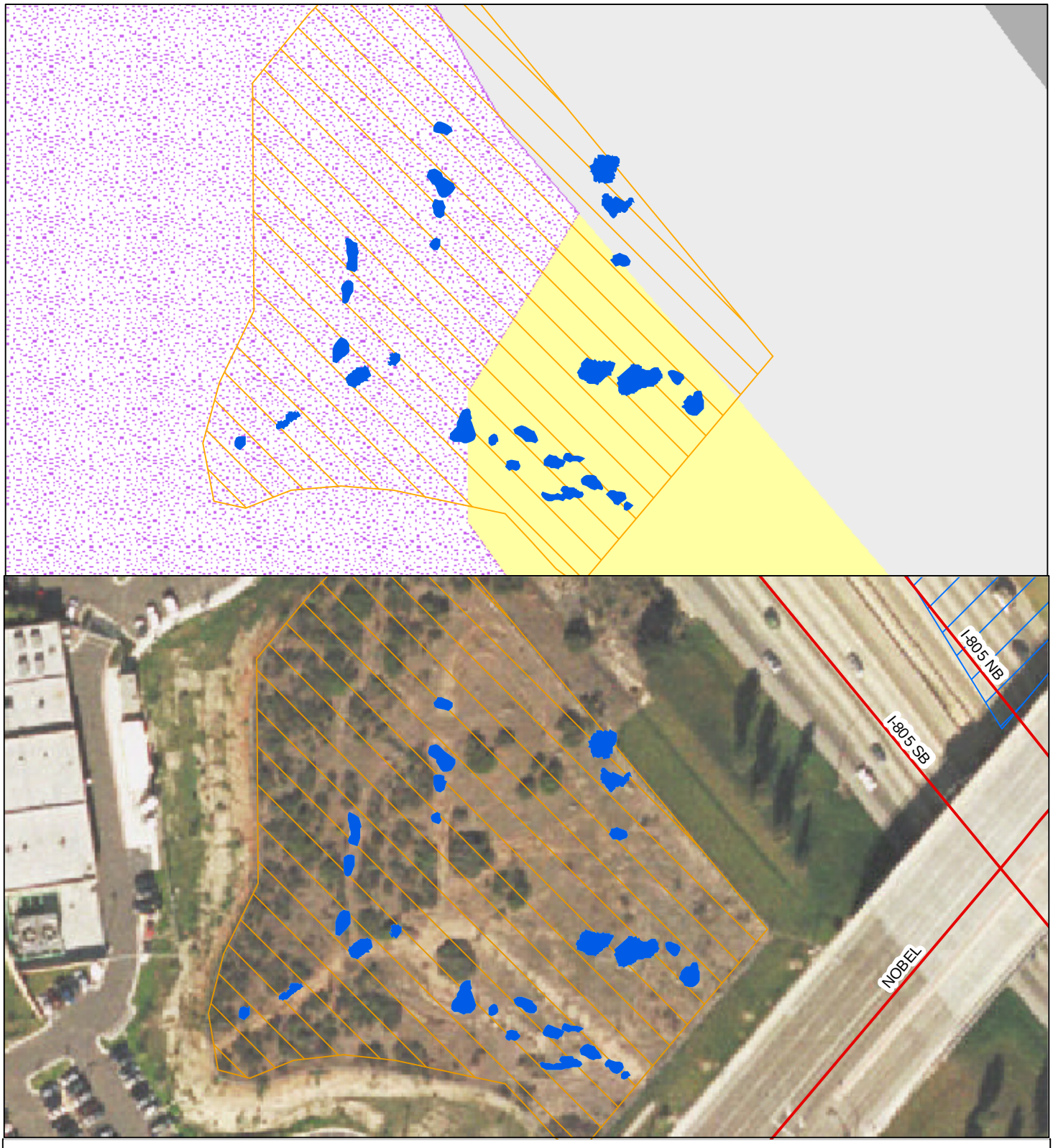
Reshape vernal pool basins by hand as necessary to minimize impacts from off-road vehicles, etc.

A qualified biologist should assess the site for non-native, invasive species, and recommend and implement a removal plan, if necessary. Weeding within and immediately adjacent to vernal pools should be done by hand. In upland areas, mechanical removal may be necessary; however, herbicides should not be used in or adjacent to vernal pools.

Maintenance, including fence repair and litter removal, should be conducted as necessary. Conduct semi-annual patrols and initiate prompt removal of all itinerant encampments. Initiate a zoning change from Industrial Parks to Open Space.

Land managers should encourage research at this site, especially relating to the long-term success of varying sizes of vernal pool preserves.

Figure 23



Nobel Research Park (X 7)

N

0.02
Miles
Kilometers
0.05

- Roads
- MHPA
- Conserved Lands
- Vernal Pools at Site
- Adjacent Vernal Pools
- Coastal Sage Scrub
- Chaparral
- Disturbed Land
- Urban/Developed

Note: MHPA and Roads not shown in top map; vegetation mapping per Ogden 1997.

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8.1.4.e *Nobel Drive (X 5)*

Site Description and Existing Conditions

Nobel Drive (X 5) is located south of Nobel Drive and west of I-805 in the University Community Planning Area. Fifty-five acres of a 94-acre parcel were preserved as mitigation for the Eastgate Technology Park (EQD #81-21-31). It is owned and managed by the City of San Diego Real Estate Assets and Park and Recreation Departments. The majority of the site is within the MHPA and a portion has been designated as open space. The area is zoned for scientific research and industrial parks, and adjacent land uses include transportation, multi-family residential and research parks.

Seven vernal pools and road ruts (344 m^2 [3702.785 ft^2]) at Nobel Drive support *B. sandiegonensis*. *N. fossalis* was observed by Bauder in 1986 and *E. aristulatum* was observed by Pacific Southwest Biological Services in 1993; neither was observed during surveys in 2003. The vernal pools are natural in origin and are underlain by Redding gravelly loam. Upland vegetation is characterized by mixed chaparral, disturbed coastal sage scrub and non-native grasslands.

The site was identified as necessary to stabilize the population of *B. sandiegonensis* by the adopted *Recovery Plan for Vernal Pools of Southern California* (USFWS, 1998).

Threats

Development

These vernal pools were preserved as mitigation for the Eastgate Technology Park project (EQD #81-12-31) and the additional portions of the site are unlikely to be developed.

Invasive Species

Non-native grasses and forbs are prevalent in both the uplands and vernal pools.

Edge Effects

Nobel Drive is located adjacent to roadways and other developed areas; however, the preserve is relatively large (55 acres) and is connected to preserved lands in Rose Canyon. The *Vernal Pool Management Plan* (City of San Diego, 1996) noted trespass as a threat and subsequently fencing has been installed around individual vernal pools as well as property boundaries that border streets and other pedestrian corridors.

Fire and Fire Suppression

The site may serve as a staging area in the event of a fire; however, wildfire is unlikely due to the density of surrounding development.

Required Management Activities

The site is managed by the City of San Diego Park and Recreation Open Space Division.

Fencing was installed around the vernal pools and adjacent to nearby roadways to minimize trespass. Funding has been secured through a SANDAG TransNet grant for invasive species control, re-introduction of locally extinct species and basin re-shaping, as necessary.

Management Recommendations

The *Vernal Pool Management Plan* (City of San Diego, 1996) recommended monitoring of vernal pools, deterrence of off-road vehicles and trespassing and quarterly maintenance inspections. The vernal pools were re-surveyed as part of the *Vernal Pool Inventory* (City of San Diego, 2004) and the site boundaries and individual vernal pools have been fenced to minimize trespassing. Maintenance inspections are conducted by rangers from the City of San Diego Park and Recreation Department Open Space Division.

A portion of the conserved area is currently designated as open space. It is recommended that the remaining conserved area be designated or dedicated as open space through the Park and Recreation Open Space Division.

Reintroduce *E. aristulatum* and *N. fossalis.* Restoration and reintroduction efforts shall utilize seeds from within the smallest possible geographic range, in the following order, as necessary: complex, series, geographic region (i.e. Otay Mesa).

Reshape vernal pool basins by hand as necessary to minimize impacts from off-road vehicles, etc.

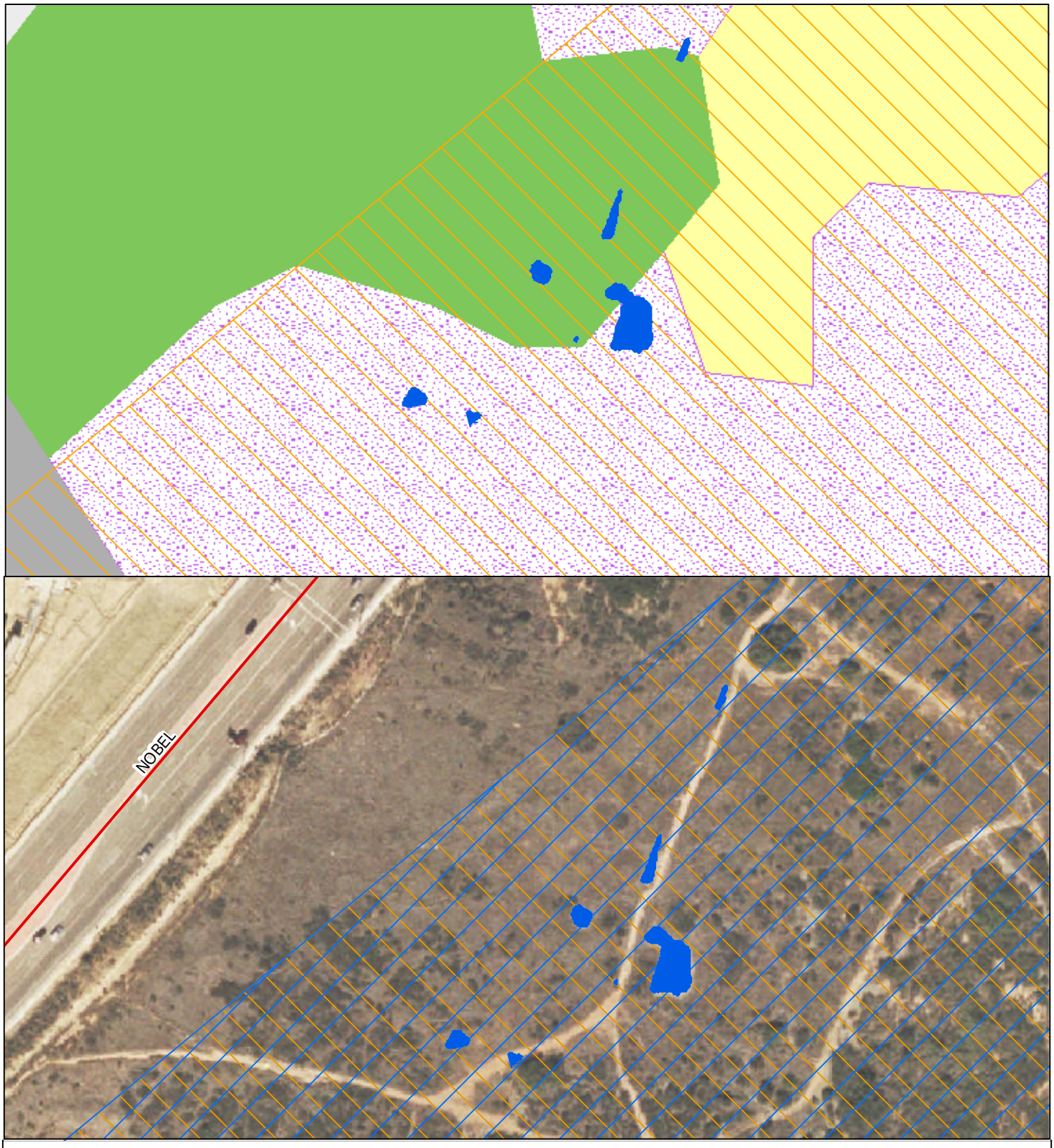
All management actions should promote stabilization and recovery of *B. sandiegonensis* in accordance with the adopted *Recovery Plan for Vernal Pools of Southern California* (USFWS 1998).

A qualified biologist should assess the site for non-native, invasive species (e.g. *Lythrum hyssopifolium*), and shall recommend and implement a removal plan, if necessary. Weeding within and immediately adjacent to vernal pools should be done by hand. In upland areas, mechanical removal may be necessary, however, herbicides should not be used in or adjacent to vernal pools.

Maintenance, including fence repair and litter removal, should be conducted as necessary. Initiate a zoning change from Industrial Parks to Open Space.

Land managers should encourage research, especially relating to the long-term success of varying sizes of vernal pool preserves.

Figure 24



Nobel Drive (X 5)

0.03
Miles
Kilometers
0.06

Roads
MHPA
Conserved Lands
Vernal Pools at Site
Adjacent Vernal Pools
Coastal Sage Scrub
Chaparral
Grassland
Disturbed Land
Urban/Developed

Note: MHPA and Roads not shown in top map; vegetation mapping per Ogden 1997.

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